CLAIMS

We claim:

1. A process for measuring analyte concentrations by affinity viscosimetry consisting in pumping of the sensitive liquid through a conductor for streaming liquids with integrated dialysis chamber and measuring device for viscosity, whereby the maximum shear rate of the sensitive liquid, which occurs at the measuring process, is at least twice the maximum shear rate of the sensitive liquid occuring in the dialysis chamber during the dialysis process.

2. A viscosimetric affinity sensor for carrying out a process according to claim 1, characterized by a liquid-conductor perfusable by the sensitive liquid and containing a dialysis chamber, a measuring chamber for the flow resistance and a connected pumping device, whereby the flow resistance of the measuring chamber is layed out such that the maximum shear rate in the sensitive liquid during the measuring process is more than twice the maximum shear rate occuring in the sensitive liquid during the dialysis process.

3. A viscosimetric affinity sensor according to claim 2, characterized by the following peculiarity: the dialysis chamber is part of a needle-like body.

4. A viscosimetric affinity sensor according to ~~claims 2 or 3~~ claim 2, characterized by the following peculiarity: the liquid-conductor contains a pressure sensor.

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5. A viscosimetric affinity sensor according to one of the ~~claims 2 to 4~~ claim 2, characterized by the following peculiarity: the measuring chamber is situated within a needle-like body, the dialysis chamber is situated at its surface.

a Sub B2?

6. A viscosimetric affinity sensor according to one of the ~~claims 2 to 5~~ claim 2, characterized by the following peculiarity: the sensitive liquid fills the dialysis chamber and the measuring chamber, and borders within the measuring chamber or within an additional chamber to a fluid of low viscosity which is not miscible with water.

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7. A viscosimetric affinity sensor according to claim 6, characterized by the following peculiarity: the additional chamber contains one ore more electrodes, by the help of which the position of the meniscus between fluid and sensitive liquid can be followed.

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8. A viscosimetric affinity sensor according to one of the ~~claims 2 to 7~~ claim 2, characterized by the following peculiarity: the sensor contains a valve or a valve-like device for interruption of the cohesion within the sensitive liquid by introduction of a gas or another fluid with low viscosity, whereby this valve or valve-like device is placed between the dialysis chamber and the measuring chamber or between the dialysis chamber and the pump.

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9. A viscosimetric affinity sensor according to ~~one of the~~ claims 2 ~~8~~, characterized by the following peculiarity: the lumen of the dialysis chamber consists of a space between a solid body and the dialysis membrane.

Add B5